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TITLE: SEMICONDUCTOR INTEGRATED
CIRCUIT

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ABSTRACT:

PROBLEM TO BE SOLVED: To control variations in

service lives of aging
devices and remove an influence of defective bits.

SOLUTION: The semiconductor integrated circuit is provided with an aging circuit that is formed by connecting in parallel a plurality of aging devices 81 formed of nonvolatile memory cell with a double-layer gate structure having a floating gate and a control gate, and a sense circuit that compares an output signal from the aging circuit with a reference signal I0 stored in a memory and detects a service life of the aging circuit. In addition, it is designed such that whole service life may be determined on the basis of some aging devices with longer service life (excluding ones with the longest service life) among the aging devices.

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